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INTELLECTUAL PROPERTY AS PRICE DISCRIMINATION: IMPLICATIONS FOR CONTRACT

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INTRODUCTION

Under federal copyright law, Congress places some works of authorship in the public domain, and leaves some behaviors by the public unregulated. The same is true of patent law. Historically, courts have generally respected the resulting liberties.

Imagine that a publisher of Shakespeare's sonnets puts a label on each volume saying, "*By Taking Possession of This Volume The Purchaser Promises Not to Resell, Loan or Rent it, and Further Promises Not to Copy Or Publicly Recite The Poems Printed Herein.*" We expect that a state court would refuse to enforce the purported restriction.[1] Similarly, the manufacturer of an unpatented device

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1. Mid-century, when the Metropolitan Opera broadcast its performances of classic compositions, the risk of nonconsensual copying or rebroadcast was significant. Record companies that were licensed to make recordings or that themselves had hired performers lacked the limited rights now found in 17 U.S.C. §§ 102(a)(7), 106(1)-(3), 106(6), 114, 1101 (1997). Performers and companies tried to use "do not copy" labels to give themselves rights that Congress had not awarded. Learned Hand famously rebuffed one such attempt in *RCA Mfg. Co. v. Whiteman*, 114 F.2d 86 (2nd Cir. 1940):

> Of the nine records here in question five . . . bore the legend: '*Not Licensed for Radio Broadcast.*' . . . After August 15, 1937, this notice was changed to read as follows: 'Licensed by Mfr. under U.S. Pats. 1625705, 1637544, RE. 16588 (& other Pats. Pending) *Only For Non-Commercial Use on Phonographs in Homes. Mfr. & Original Purchaser Have Agreed This Record Shall Not Be Resold Or Used For Any Other Purpose. See Detailed Notice on Envelope.*' These later records were inclosed in envelopes which even more clearly gave notice of the same limitations. . . .
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> . . . .
>
> . . . [E]ven if [the conductor's] 'common-law property' in his performances survived the sale of the records on which they were inscribed, it would be very difficult to see how he, or a fortiori the maker of the records, could impose valid restrictions upon their resale. . . . We do not, however, have that question to decide, for we think

cannot expect to gain any legal rights by painting "*Do Not Copy*" on each product as it rolls toward the end of the assembly line. Yet today courts are beginning to honor just such restraints in the context of contracts over computer software.[2]

To justify enforcing these restrictive legends, the supposed virtues of "price discrimination" are sometimes offered. Indeed, Harold Demsetz has shown that in some circumstances price discrimination might make possible what is usually thought impossible: simultaneously providing incentives to authors and inventors, and access to everyone who values the product above its marginal cost.[3] But at no point does Professor Demsetz or anyone else suggest that a monopoly coupled with price discrimination will always produce results superior to those achieved in a competitive market.

Price discrimination increases a producer's revenues, and thus

> that the 'common-law property' in these performances ended with the sale of the records and that the restriction did not save it; and that if it did, the records themselves could not be clogged with a servitude.

Id. at 87-88 (emphasis added).

I do not mean to overstate the state courts' unanimity. Some attempts to enforce restraints on chattels have been successful. *See* Zechariah Chafee, Jr., *Equitable Servitudes on Chattels*, 41 HARV. L. REV. 945, 957-69 (1928); Zechariah Chafee, Jr., *The Music Goes Round and Round: Equitable Servitudes and Chattels*, 69 HARV. L. REV. 1250, 1262 (1956) (arguing, largely without reference to copyright, that "enforcement [of equitable servitudes on chattels] ought to depend on public policy"). In addition, much of what the plaintiff attempted in *Whiteman* was later achieved under the misappropriation doctrine. *See* Metropolitan Opera Ass'n v Wagner-Nichols Recorder Corp., 101 N.Y.S.2d 483 (Sup. Ct. 1950), *aff'd*, 107 N.Y.S.2d 795 (N.Y. App. Div. 1951).

For an exploration of the equitable servitude doctrine in the computer context, see Thomas M.S. Hemnes, *Restraints on Alienation, Equitable Servitudes, and the Feudal Nature of Computer Software Licensing*, 71 DENV. U. L. REV. 577 (1994).

2. It might be argued, however, that a true servitude would "run with" the object, no matter how the object finds its way into someone's hands, while today's shrinkwrap and click-through licenses generally purport only to restrict the purchaser and those with whom he trades. *See* ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1454 (7th Cir. 1996). In current commentary, a live question is when (and whether) there can be such frequent coupling of copies with restraints that the practice should be treated as property. It is probably uncontroverted that equitable servitudes are property. *See* Chafee, *Equitable Servitudes*, *supra* note 1, at 957-69.

3. *See* Harold Demsetz, *The Private Production of Public Goods*, 13 J.L. & ECON. 293 (1970). Copyright and patent give a degree of market power, sometimes a monopoly. All acknowledge that the monopolies that the law produces to provide incentives involve a deadweight allocative loss. Professor Demsetz argues this loss could in theory be eliminated by perfect price discrimination. Under perfect price discrimination, every customer would pay an amount exactly equal to the maximum he or she would be willing to pay. Consumer surplus would be zero—but everyone who valued an embodiment at a level at or equal to its marginal cost would be able to possess one. The person who values a copy at marginal cost pays that amount, and everyone who values copies at higher amounts will pay more. No one would be excluded from access to the good. And because all the consumer surplus is transferred to the owner of the copyright or patent, incentives are at least as strong (actually, stronger) than they would be under conditions of a one-price monopoly.

potentially increases incentives.[4] But it can also raise price and reduce quantities, without yielding any incentive payoff large enough to compensate. Yet the tool of price discrimination has recently been employed as if it were self-justifying.

The error can be most easily seen if we recognize that all intellectual property law operates by fostering price discrimination. For example, when a copyright proprietor puts copies of her book, song, software, or movie on the market, copyright helps her to distinguish between copiers and non-copiers. It also helps her to charge differing prices among those purchasers who are public performers, adapters, public displayers, and so on,[5] and to further subdivide the rights[6] and pricing structures[7] within those groups.

Parts I[8] and II[9] of this essay explain the dynamics and the definitional issues involved. Part III[10] examines the well-known *ProCD* opinion by Judge Frank Easterbrook,[11] and critiques his handling of both the economic issues and the issue of pre-emption. Part IV criticizes the handling of price discrimination notions found in an essay within the current symposium.[12] In that part I suggest that even where some price discrimination is necessary for incentives, more price discrimination is not necessarily better.[13]

4. The increase in incentives is "potential" rather than inevitable, because at some point incentives will be adequate to call forth the desired work, and any further increase in revenues will be pure rent.

5. The rights of authors (and their employers and assignees) are set out in various parts of title 17 of the United States Code. The major components appear in 17 U.S.C. § 106, set out *infra* in text accompanying note 24. Interestingly, the copyright statute is explicit about encouraging many more forms of price discrimination than appear in the patent statute. *Compare infra* note 23 (Patent statute) *with infra* text accompanying note 24 (Copyright statute).

6. The extent to which intellectual property rights should be divisible has been a matter of debate. The 1976 Copyright Act

> contained[ed] the first explicit statutory recognition of the principle of divisibility of copyright in our law. This provision [now enacted in § 201(d)], which ha[d] long been sought by authors and their representatives, . . . means that any of the exclusive rights that go to make up a copyright . . . can be transferred and owned separately.

HOUSE COMM. ON THE JUDICIARY, COPYRIGHT LAW REVISION, H.R. REP. NO. 94-1476, at 123 (1976).

7. This can occur through a collective rights society such as ASCAP as well as through an individual employing the statute, as Jane Ginsburg has reminded me. Thus ASCAP can charge nightclubs a lower fee for playing its members' songs than it charges radio broadcasters.

8. *See infra* pp. 1370-75.

9. *See infra* pp. 1375-78.

10. *See infra* pp. 1378-86.

11. 86 F.3d 1447 (7th Cir. 1996).

12. Part IV appears *infra* pp. 1386-89. The essay it examines is William W. Fisher III, *Property and Contract on the Internet*, 73 CHI.-KENT L. REV. 1203 (1998).

13. *See infra* text accompanying notes 76-80.

I. CLASSIC STORY RETOLD IN THE LANGUAGE OF PRICE DISCRIMINATION

Intellectual property's traditional Genesis tale is essentially one of enabling a creator to price discriminate. A creator, whether inventor or author, wants to sell embodiments of her product.[14] Some potential customers want to purchase her machine, story or database for their businesses; some want a copy for personal use such as recreation or looking up the phone numbers of old friends; and some want a copy for the purpose of reproducing it.

Without an ability to distinguish at least two groups of customers—dividing the (1) end-users or consumers from the (2) publishers and other replicators—the creator will probably have to sell her embodiments at one price. Of the options this would leave open to the creator, none are happy, unless she is lucky enough to have a customer who values using the product at a price equal to its creation costs. In the absence of that rare circumstance, the creator has a few uncomfortable choices. She might aim at the consumer market, and ask a fairly low price for each embodiment. At this price (let's call it "*P*"), some consumers will be willing to buy the machines or books the creator sells. But replicators will buy as well. The creator may find her market drying up as consumers turn to buying the copies that replicators offer for sale at lower price. This lower price, which we might call "*P-marginal*," will tend to equal the marginal cost of making a new physical embodiment.

The replicator is able to charge *P-marginal* and still stay in business because he does not bear the expenses of creation such as research and development.[15] If copyists are able to sell identical embodiments (and this is a big "if"—the caveats are well canvassed in the copyright literature[16]) and charge only *P-marginal* for each, the

14. A typical embodiment for inventors might be a machine or a chemical compound, and for authors a typical embodiment would be a book, cassette, or CD-ROM. Under copyright law, by definition, all embodiments can be classified as either "copies" or "phonorecords." *See* 17 U.S.C. § 101 (1997) (definitions of "copies, "phonorecords," and "fixed").

15. In addition, a copyist bears less risk than the creator did. A creator will not know in advance if her product is likely to be successful in the market. She therefore will create only if the revenue stream likely to result from success is large enough to cover her costs multiplied by a factor reflecting the odds of failure. A replicator can act after the creator's product has proven its market appeal. Because the replicator can be free of both creation costs and risk, the replicator will be willing to enter the market even if the projected revenue stream is smaller than the amount needed to motivate the creator. Note, however, to the extent that a replicator seeks to minimize risk through delayed entry, the creator's "lead time advantage" will be greater, and her need for IPRs less.

16. *See* Stephen Breyer, *The Uneasy Case for Copyright*, 84 HARV. L. REV. 281 (1970);

creator's embodiments priced above *P-marginal*, at *P*, are likely to go largely unsold. Creation costs will not be covered.

Alternatively, the creator can lower her own price to *P-marginal*, and sell more embodiments. However, she will again be unable to cover her creation costs since (by definition) *P-marginal* does not include such costs. This option, like the option of charging *P*, will not encourage creativity.

As another choice, the creator could aim at the "replicator" market, and demand a price for access to her manuscript or invention high enough to cover the costs of creation (adjusted upward for the creator's *ab ante* risks of failure). Let us call that price "*P-prime*."

Unfortunately, any replicator will face the same problem as would have been faced by the creator herself, namely, competition from customers who themselves will copy. Therefore no replicator or group of replicators is likely to emerge that is willing to pay a price *P-prime*.[17] If that happens, creativity again will have insufficient incentives.[18]

Enter Intellectual Property Rights ("IPRs"). Patent law permits a potential inventor to distinguish between someone who wants to use her widget-making machine to make widgets, and someone who wants to use the machine as a prototype for manufacturing identical widget-making equipment. Similarly, copyright enables a potential novelist or songwriter to effectually distinguish between readers or listeners on the one hand, and publishers or record companies on the other. That is because any person who buys a copy of a book or song or machine has a legal duty to refrain from copying it without the creator's permission.[19] Someone who wishes to replicate the product

Wendy J. Gordon & Robert Bone, *The Economics of Copyright*, *in* ENCYCLOPEDIA OF LAW AND ECONOMICS (Edward Elgar & The University of Ghent, forthcoming 1999); Wendy J. Gordon, *An Inquiry into the Merits of Copyright*, 41 STAN. L. REV. 1343 (1989); Tom G. Palmer, *Intellectual Property: A Non-Posnerian Law and Economics Approach*, 12 HAMLINE L. REV. 261 (1989).

17. The caveats are well-known here, as well. For example, there might be an initial class of customers willing to pay *P-prime* because their internal valuations are high, independent of any possible revenue from copying.

18. The world where there are no IPRs should not be confused with a world where there are *some* IPRs which provide less than perfect price discrimination. The latter is the situation of the companies that own movie copyrights today, as discussed *infra* in text accompanying notes 26-32.

19. In addition, patent law forbids even independent replication. That feature of patent law is usually explained by the frequency with which different groups racing to solve the same scientific problem may reach the same conclusion independently. It is argued that a "winner-take-all" reward (given to the first inventor to succeed) is necessary if potential innovators are to have sufficient incentives to enter the race *ab ante*. Examining this logic would take us outside the scope of the instant paper.

must identify himself and negotiate a separate deal with the creator or face liability and, potentially, criminal sanctions.[20]

Since the users who place a higher value on access to an embodiment will often be the users who plan to copy and resell it, the law's restraint on replication provides creators a means by which to divide most of the customers with high valuations from most of the customers whose valuations are low. The creator (or her employer or her assigns) can then charge different prices to each group. Further, since the law forbids copying regardless of where an embodiment was purchased, a replicator will gain nothing by purchasing a cheap copy from a consumer, or by pretending to be a consumer and purchasing a cheap consumer copy. Thus IPRs discourage arbitrage between high- and low-valuation markets.[21]

Under today's copyright practice, a free-lance author typically sells a copy of her manuscript and an exclusive right to reproduce it[22] to a single publisher for *P-prime* (say, an advance of $100,000). The publisher then resells copies to the members of the public at *P* (say, $20 per book). In the patent field, many inventors are employees who immediately assign their patents to their employing firm. The inventors receive a salary. The employing firms typically either sell embodiments of the invention to the public at *P*, or license another firm or finite group of firms to produce the invention for a fee of *P-prime*.

In neither the case of freelancers nor in the case of employee creators will copies be sold at *P-marginal* (the cost of physically making an additional embodiment), until the term of the copyright or patent has expired. It is hoped that by that time, a socially desirable work will have brought the creator (or her employer or assigns) more than *P-prime*.

The intellectual property law thus provides incentives by giving potential creators or their employers the prospect of covering creation costs by means of price discrimination. The price discrimination so provided is, by design, not perfect. This is perhaps easiest to

20. For further development, see Wendy J. Gordon, *On Owning Information: Intellectual Property and the Restitutionary Impulse*, 78 VA. L. REV. 149, 211-66 (1992) and Wendy J. Gordon, *Of Harms and Benefits: Torts, Restitution, and Intellectual Property*, 21 J. LEGAL STUD. 449, 472-77 (1992).

21. The profit earned by a buyer who resells to a higher-valuation purchaser is known as "arbitrage." Where arbitrage is easy, price discrimination is difficult.

22. Publishing contracts typically focus on the author's assignment of exclusive rights rather than on sale of a copy. Such contracts do not have to specify that a manuscript copy is being provided; that is understood, since the copyright is useless without a copy to work from.

see in copyright law.[23] The primary grant of rights in U.S. copyright law appears in section 106. It provides that, "[s]ubject to" various exceptions,

> [T]he owner of copyright . . . has the exclusive rights to do and to authorize any of the following:
>
> (1) to reproduce the copyrighted work in copies or phonorecords;
>
> (2) to prepare derivative works based upon the copyrighted work;
>
> (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
>
> (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly;
>
> (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and
>
> (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.[24]

Note that the statute gives copyright owners no right to control private performances (such as singing in the shower or playing a videocassette on one's living-room VCR). Further, the rights are subject to various exceptions, including the liberty that the First Sale Doctrine gives purchasers of lawfully-made copies and phonorecords to resell or rent the embodiments they have bought.[25]

Note also that IPRs do not need to provide *perfect* price discrimination in order to perform their primary economic function: enabling a creator (or her employer or assigns) to sell embodiments at a price above their marginal cost. This can be seen by considering the situation of movie copyrights.

American copyright law gives the owners of motion picture copyrights no legal rights by which to distinguish between end-users

23. Patent law gives patentees control over the "making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States." 35 U.S.C. § 154(a)(1) (1997). "[I]f the invention is a process," then the rights granted are slightly different: "the right to exclude others from using, offering for sale or selling . . . or importing . . . products made by that process." *Id.*

24. 17 U.S.C. § 106 (1997).

25. The "First Sale Doctrine" gets its name from the way that it exhausts the copyright owner's right to control the distribution of a particular copy or phonorecord, under 17 U.S.C. § 106(3), with the first sale of that embodiment. The Doctrine is recognized in 17 U.S.C. § 109(a) (1997).

(who buy movie cassettes to see at home) and video rental shops. This is because the First Sale Doctrine limits a copyright owner's right to control distribution of copies.[26] A difficult choice results for the movies' copyright owners. Selling cassettes at a low price aimed at consumers will mean the copyright proprietors will forego the high prices that video rental stores would have paid. Selling cassettes at a high price will mean foregoing most sales to consumers. Nevertheless, the business of making movies and selling movie cassettes continues.[27]

One reason for the apparent continued viability of the market for movies and movie cassettes is the law's prohibition against copying and public performance. These prohibitions are too coarse-grained to themselves enable movie makers to charge a rental store more for cassettes than they would charge a consumer,[28] but they do make other revenues available to the copyright proprietors.[29] In addition, and most tellingly, the prohibition on copying makes possible selling to the video stores at a price above marginal cost.

Video stores are willing to pay more than *P-marginal* because, unlike the replicators in the "no IPR" world, a video rental store that purchases copies from copyright proprietors at price *P* will face competition only from shops that bear roughly the same costs that the store itself does. Shops that rent or sell pirate copies to the public will presumably be sued[30] before their super-low fees ruin the stores that

26. *See* 17 U.S.C. § 109(a), discussed *supra* at note 25. In addition, since a copyright owner's right to control performance is limited to "public" performance, he cannot charge a fee each time a privately owned cassette is played in a living room. *See* 17 U.S.C. § 106(4), (6).

27. By using this example, I do not mean to indicate that the optimal number of movies is being made or that the optimal number of copies is being distributed. It may be that more (or fewer) movies should be made and sold. That is an issue to be separately determined. My point is that such issues of incentives must be determined before we know how much price discrimination, and how many tools for achieving market dominance, are necessary.

Apparently, when it came to software and music, Congress was persuaded that the First Sale Doctrine did need to be amended in order to provide incentives. *See* 17 U.S.C. § 109(b) (certain commercial renting of records and software placed in the control of copyright owners).

28. Another reason for the apparent viability of the cassette market may be the availability of price discrimination methods that do not depend on law, such as temporal discrimination: pricing a cassette high in the first few weeks (given that video stores often profit from trumpeting quick availability), and pricing it lower after time passes (when most video stores may already have bought their copies).

29. For example, movie theaters and television broadcasters will pay for the right to "publicly perform" the film and to have copies of it. Therefore, cassette sales to rental stores and the public need not be as high as they would need to be if they were a movie maker's only revenue source.

30. The First Sale Doctrine applies only to copies that are "lawfully made." *See* 17 U.S.C. § 109(a). As to pirate copies, the copyright owner has a right to control their distribution, including resale and rental.

purchase copies through legitimate channels.

In sum, what intellectual property does is provide the writer or inventor a tool with which to distinguish classes of buyers. She cannot perfectly divide all buyers by the intensity of their valuations,[31] but she does possess a legal device for provoking self-selection by customers who plan certain typical, commercially-significant uses that involve differing intensities. Patent and copyright force such purchasers to identify themselves and bargain separately from ordinary purchasers, or face legal penalties for carrying out their plans without permission.[32]

Not every intellectual product is covered by an IPR. Whether the public gains or loses by such lacunae is a matter for factual investigation. For example, consider databases.

Many databases lie outside federal copyright. Some argue this is undesirable since databases can be expensive to create and cheap to copy. On the other hand, databases are an unusual product. Unlike the typical literary work, a database is something that an individual user or small group of users might value at a price close to *P-prime.* If so, it is possible that *in her initial sale* a database creator could recoup her costs and compensation for her risk.[33] From the public's perspective, such a creator does not need to price discriminate.[34] (Of course, from the creator's perspective, the more revenue the better—and price discrimination produces more revenue.)

II. WHAT'S IN A NAME?

It might be asked why this matters. The answer is that the concept of "price discrimination" is currently popular, as both a tool and a solution, among courts and commentators. When faced with apparent shortfalls in traditional IPR protection, such as the refusal of copyright to protect many databases, an increasingly common

31. Note that a recent article points out that intellectual property owners might not need to divide buyers by the intensity of their valuations in order to effectively price discriminate. *See* Yannis Bakos et al., *Shared Information Goods*, 42 J.L. & ECON. 117 (1999).

32. To avoid liability, potential replicators declare their identity, self-selecting in what resembles a classic form of second-degree price discrimination. *See* LOUIS PHLIPS, THE ECONOMICS OF PRICE DISCRIMINATION (1983).

33. Game theory, studies of industry practice, and other theoretical and empirical aids would help us to determine whether or not the end-users who have a high individual value for the database would indeed pay a high price. There are obvious incentives for an individual potential purchaser to hold out and later copy from those entities that *did* purchase an initial copy.

34. In this defined situation, she will produce her database even without the ability to control copying or disposition after the first sale.

response is "to foster price discrimination."

Many lawyers feel more comfortable with the use of price discrimination terminology in the contract than they will be with the notion that intellectual property law itself provides incentives by fostering price discrimination. Our lawyerly discomfort stems from our habit of seeing the individual rights granted by an intellectual property statute as separate "products" to be separately sold or licensed. We usually see the "right to reproduce" and the "right to make a derivative work" from a movie script as separate from the "right to read" it. And each of these in turn can be seen as separate from the "right to perform the script publicly." From that conceptual perspective, it is not "price discrimination" to charge one price, *P*, for the right to read a movie script, and another price *P-prime*, for the right to reproduce the script or adapt it for the screen, because the right to read and the right to reproduce or adapt are all seen as different commodities.[35] But that habit of seeing separate products is a straightforward matter of conceptual choice.

Alternatively, we can see that in both situations an identical object—a copy of the script—is being sold, and that the rights function to enable a copyright owner to distinguish between different intensities of script-buyer preference. Once the script is written, the cost of making a photocopy for a movie studio is the same as the cost of making a photocopy for a drama student, even though each purchaser wishes to exercise different liberties in regard to the script.[36]

To see each right as a separate product is a form of "reification": seeing concepts as things.[37] One purpose of economics is to help us see through forms of words to their actual functioning. But sometimes economics can be used to substitute for one misleading form of words another equally opaque. As will be discussed below, in *ProCD* and since, "price discrimination" is a potentially misleading form of words having an undeserved vogue.

A definitional problem of a more formal nature should also be noted. "Price discrimination" refers to charging different buyers

35. I am indebted to Jack Balkin here.

36. The studio may want a liberty to make the script into a movie, and that right must be purchased. The student may want a liberty to read the script for homework. For this no explicit license need be purchased.

37. The literature on reification is immense. Here I use the word in its simplest sense. "Res" is Latin for "thing," and to "reify" a concept is to treat it as if it existed as a thing neutrally appearing in the world rather than as an intellectual construct.

different net prices for the same quantity of the same commodity. An invention or writing sold to a consumer (end user) can be seen as "one copy" of the product. A product sold to a commercial copyist can be conceptualized as "many copies" since it is in fact likely to result in many copies being made. It can be argued that copyright and patent are *not* forms of price discrimination, because they merely allow a writer or inventor to charge more for more embodiments.

However, in all cases the customer is the purchaser of a single copy of the information. The information simply happens to be an input capable of generating copies of itself. As such, it is only one of many kinds of products that are capable of being used both for an end use and an input use. (That is, information is one of many products capable of being used both as a consumption good and a capital good). Consider seed corn. Someone who sells corn to purchasers who want to eat it may also sell corn to purchasers who want to plant it. The latter purchaser is using the corn to generate copies of itself. Nevertheless, should the seller endeavor to charge different prices to the two groups of purchasers, his efforts would be characterized as price discrimination.[38]

The issue is utility and consistency of definitions.[39] Just as easily

38. For the formulation in this paragraph, I am indebted to Michael Meurer.

39. I am indebted to Ted Sims for identifying the quantity issue.

Another definitional issue should be mentioned as well. Price discrimination occurs where "two varieties of a commodity are sold (by the same seller) to two buyers at different *net* prices, the net price being the price (paid by the buyer) corrected for the cost associated with the product differentiation." PHLIPS, *supra* note 32, at 6 (emphasis in original). By a "cost associated with the product differentiation," Phlips has in mind items such as transportation to the consumer. *See id.* at 6-7.

An item priced at $600 when for sale at a market that the seller reached by spending $100 on transport has a "net price" of $500. This is the same "net price" as the identical item whose price tag is $700 but which is located at a market that the seller spent $200 in reaching. There is no price discrimination between those two items, despite the difference in price tags, because of the difference in cost.

Phlips's analysis thus directs us to identify what "costs" may be attached to different embodiments. In *ProCD* and similar cases, the issue becomes comparing the cost of producing an embodiment that can be used only by an ultimate consumer, and an embodiment that can be commercially replicated. If there are cost differences significant enough to account fully for the pricing differences, then there is no "price discrimination" (technically speaking).

Ordinarily the costs in making a "commercial" version of a work and a "consumer" version of it would seem to fall far short of explaining the large difference in price seen in cases such as *ProCD*. (If this is not so, there is no price discrimination.) But even where the physical costs of production are the same for the two embodiments, there is one element that might be described as "cost" that will indeed differ. This is the "cost" of profits from future sales that will be lost.

Attached to the sale of a copy to a "commercial" client is the risk that a significant loss in profits will occur if the client copies and sells the work to people who would otherwise be paying customers of the original manufacturer. Should profits from such lost sales be treated as "costs associated with the product differentiation" under Phlips's definition?

Counting "lost profits" as costs would be a difficult standard to administer and is as we can conceptualize one computer disk as equal to the many disks that can be made from it, we can conceptualize "quantity" as equal to intensity of use. It is a classic concern of price discriminators to distinguish among consumers whose valuation differs because they have differing intensities of use. Differing intensities therefore do not, in the antitrust literature or the other areas where "price discrimination" is studied, mean that different products or different quantities are involved.

Moreover, Judge Easterbrook, too, treats as "price discrimination" the ability to charge one price to parties likely to make one or no copies, and another price to parties likely to make many copies.[40] Since this essay addresses how the "price discrimination" concept is being employed by lawyers and judges, the fact that my usage is subject to the same quibble as Judge Easterbrook's is a virtue rather than a vice.

III. *PROCD, INC. V. ZEIDENBERG*

In contract's march to conquer copyright, *ProCD*[41] constitutes a victory for contract so complete that it threatens copyright's very ability to mount a defense. In *ProCD*, Judge Frank Easterbrook had to evaluate the legality of a shrinkwrap[42] license contract, and a term within the purported contract stating that purchasers of the CD-ROM at issue were forbidden to make commercial use of the database the disk contained.[43] That database, an extensive but essentially

contravened by ordinary economic usage. Not only are lost profits fairly speculative, but in addition they are remarkably dependent upon the law's specification of entitlements. If I have an "exclusive right" over all reproductions of my work, then I have a potential market of all copies, and any copies sold by a stranger are "lost sales" with regard to me. If my rights are less extensive, then so are my potential "lost sales." For these and related reasons, it is at least arguably proper to use the term "price discrimination" to describe pricing differences between two identical items, produced at the same physical cost, even if sending one of the items into the stream of commerce will cause a competitive harm to the seller in the form of "lost future profits" that sale of the other item will not cause.

40. The contract terms at issue in *ProCD* can be seen as distinguishing between the price for one copy of the database (sold to the ordinary consumer) and many copies (sold to the commercial buyer).

41. 86 F.3d 1447 (7th Cir. 1996).

42. The "shrinkwrap" license gets its name from the fact that retail software packages are covered in plastic or cellophane "shrinkwrap," and some vendors, though not ProCD, have written licenses that become effective as soon as the customer tears the wrapping from the package.

Id. at 1449.

43. *See id.* at 1450. According to the opinion, plaintiff ProCD spent many millions of dollars to compile and update its data. *See id.* at 1449; *see also* ProCD, Inc. v. Zeidenberg, 908 F. Supp. 640, 644 (W.D. Wis. 1996) (discussing plaintiff's efforts), *rev'd*, 86 F.3d 1447 (7th Cir.

unoriginal set of telephone-book entries, was probably uncopyrightable.[44] Copyright law, therefore, could not prevent a purchaser from making and selling innumerable copies of the database, or (as defendant Mr. Zeidenberg did) from posting his copy of the database on the Web and charging his own customers for access to it.

Under the purported contract, by contrast, a purchaser of the disk could do none of these things. The question thus raised (though not in these words) was whether directories of names and numbers that federal copyright places in the public domain should constitute part of the commons free for all to use, or whether a publisher who has put such public-domain material on a CD-ROM disk should be able to employ state contract law to impose restraints on its re-use.

As a good legal realist and member of the Chicago School, Judge Easterbrook evaluated not only the state of the written law, but also the question of whether the purported license term would work to the benefit of consumers generally.[45] He found that it did.[46] Enforcement, Judge Easterbrook thought, would assist the distributor in being able to charge two prices for the same CD-ROM database—one low price for ordinary consumers, and a much higher price for commercial users—and that as a result of this dual pricing structure, the price to the ordinary person could be kept low and the quantity of copies distributed could be increased.[47] Easterbrook called this device "price discrimination,"[48] and, obviously viewing price discrimi-

1996). The defendant, Matthew Zeidenberg, bought a "consumer package" of the database, and made it "available... to anyone willing to pay [his] price—which, needless to say, is less than ProCD charges its commercial customers." *ProCD*, 86 F.3d at 1450.

Since the consumer package contained a writing that purported to prohibit commercial use, *see id.*, ProCD sued Zeidenberg for breach of contract. The District Court held that the breach of contract suit could not proceed because the shrinkwrap license was invalid and because federal copyright law pre-empted the contract's applicability. *See ProCD*, 908 F. Supp. at 655, 659. Judge Easterbrook reversed, and directed the lower court to enter a judgment for the plaintiff. *See ProCD*, 86 F.3d at 1455.

44. Judge Easterbrook treats it as such, though, as he notes, the database may have had a more plausible claim to "originality" than did the white-pages phone book declared uncopyrightable in *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991). See Easterbrook's opinion in *ProCD*, 86 F.3d at 1449.

45. *See ProCD*, 86 F.3d at 1449-50.

46. *See id.*

47. *See id.* at 1449-50, 1455.

48. *See id.* at 1449. "Price Discrimination" is typically defined as a difference in price charged to different customers for the same commodity. *See* PHLIPS, *supra* note 32, at 5 (noting the traditional economic definition of price discrimination).

The term price discrimination had a negative connotation in the past, being associated with various unsavory business practices, *see* NEIL M. SINGER, PUBLIC MICROECONOMICS: AN INTRODUCTION TO GOVERNMENT FINANCE 85 (2d ed. 1976) (noting that usury laws, minimum-wage laws, and truth-in-lending laws all arose as a popular response to the perceived evils of nation as a good thing in the context, upheld the license term against challenges brought both under state law and under the Supremacy Clause of the Constitution.

The Supremacy Clause challenge arose because if federal law is to be the "supreme law of the land," state law must give way when it enters onto territory which is exclusively federal, or when it threatens to interfere with federal law. Back in the far-off days when the 1976 Copyright Act was adopted, no one imagined that contracts could accomplish what copyright accomplishes. Copyright is a rule applicable to everyone. Contracts are expensive to negotiate, individually-crafted arrangements between individual signatories. The legislative history thus reflects an assumption that contracts by their nature are incapable of usurping exclusive federal territory.[49] But as the digital era progresses, contract and content alike proliferate with the flick of a keyboard button. With the increased use of standardized terms in "shrinkwrap" and "click-through" formats, and new statutory prohibitions that penalize efforts to bypass the copyright proprietor's technical gateways,[50] the contracts attached to copies of a given work are likely to be cheap, uniform, and nearly ubiquitous. Thus digital technology and its legal accompaniments begin to bridge the gap between federal copyright and state contract law.[51]

price discrimination), and with the statutory prohibitions of the Robinson-Patman Act, 15 U.S.C. § 13(a) (1997) (forbidding price discrimination "where the effect of such discrimination may be substantially to lessen competition" or to have other specified anti-competitive effects). Price discrimination increases the profits that flow to a monopolist. In recent years, however, policymakers and economists have increasingly explored the possible *merits* of price discrimination as a way to increase the quantity of goods produced by monopolists. Some scholars seem to have been downright seduced by its possibilities.

49. *See* HOUSE COMM. ON THE JUDICIARY, COPYRIGHT LAW REVISION, H.R. REP. NO. 94-1476, at 132 (1976).

50. *See* 17 U.S.C. §§ 1201-1205 (1997). "No person shall circumvent a technological measure that effectively controls access to a work protected [by copyright] under this title." *Id.* § 1201(a)(1)(A). Thus, if Database Proprietor *Mr. X* makes his uncopyrightable database available only in a format which also includes some copyrightable material (such as programs that enable the data to be manipulated, or a narrative description of the database's properties), the new statute would assist *Mr. X*. It would back up the technical devices he employs to keep people from accessing the database without having signed a contract. Admittedly, the statute makes some effort to protect the public's "ability to make noninfringing uses" of particular classes of works, *see id.* § 1201(a)(1)(B), but it is unclear whether that ability will in fact be safeguarded. Note, further, that the statute nowhere makes it unlawful to use encryption and other technical gates to "lock up" public domain material.

All contracts require leverage. Being able to lock something up gives one the power to sell or rent the key, at a price and on conditions.

51. *See, e.g.*, Niva Elkin-Koren, *Copyright Policy and the Limits of Freedom of Contract*, 12 BERKELEY TECH. L.J. 93, 108-13 (1997); Jessica Litman, *Reforming Information Law in Copyright's Image*, 22 U. DAYTON L. REV. 587 (1997). These developments are leading me to

The pre-emption issues so raised by *ProCD* are complex.[52] Equally complex are the technical and normative issues of private law raised by the case.[53] Of equal or greater difficulty are the welfare questions, in particular, the validity *vel non* of Judge Easterbrook's argument that because of price discrimination, social welfare would increase if the database at issue were made subject to the purported contract's restraints.

Economists agree that price discrimination can increase social welfare under certain stringently defined conditions of monopoly.[54] That is because price discrimination can ameliorate the quantity restraints that a monopolist ordinarily employs to keep revenue high. But in *ProCD* it is not clear what pre-existing monopoly needed to be encouraged to expand its output. In fact, in *ProCD*—and for databases generally—the issue is whether the producer *should* have a monopoly.

The economists give us a predictable recipe for approaching that question: a monopoly in intellectual products (or any other system of copying restraint) is economically worthwhile if the benefits it produces outweigh its costs. To evaluate the *benefits* of such a monopoly, we would ideally try to discover what works would not appear without the incentive of the monopoly to lure them forth, and calculate their value.[55] To evaluate the monopoly's *costs*, we would

rethink portions of my own position on the gap between contract and copyright. *See* Wendy J. Gordon, *An Inquiry into the Merits of Copyright*, 41 STAN. L. REV. 1343, 1413-22 (1989).

52. For example: Did Congress mean to put uncreative databases permanently in the public domain? Given the nature of the Copyright Clause, is Congress empowered (or on the other hand, is it *mandated)* to do so? What standard should be used to determine if a state is granting rights "equivalent to" copyrights, or whether state law is interfering with the achievement of federal goals?

53. For example: Not only is the *ProCD* type of contract dictated by one side of the transaction and not seen at the time the consumer makes her purchase—thus raising concerns about autonomy—but the contract term also imposed a "restraint on alienation" of a form the common law has long disdained.

54. *See* Michael J. Meurer, *Price Discrimination, Personal Use and Piracy: Copyright Protection of Digital Works*, 45 BUFF. L. REV. 845, 896-98 (1997). Speaking generally, monopolists will produce at a rate that maximizes their revenue but which is sub-optimal from the perspective of social welfare because the monopolist's greatest profit comes (if he charges only one price) at a point where he is supplying less than competitive quantity. By price discrimination (charging more than one price for the same commodity), the monopolist captures some of the consumers' surplus, and can increase revenue by increasing his quantity of production. This reduces the allocative shortfall that would have been created by the low level of quantity produced. The general dynamic is explained in Fisher, *supra* note 12, at 1236-39.

55. *See* Stanley J. Liebowitz, *Copyright Law, Photocopying, and Price Discrimination*, *in* 8 RESEARCH IN LAW AND ECONOMICS: THE ECONOMICS OF PATENTS AND COPYRIGHTS 181 (John Palmer & Richard O. Zerbe, Jr. eds., 1986). To this might be added any benefits from centralization, *see* Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265 (1977).

count up the value lost from factors such as (a) the restraints on access that the system imposes on works that would have been produced anyway;[56] (b) works not produced or not disseminated because they needed to build on prior works in ways not permitted by the legal restraints;[57] (c) efforts or expenditures spent on "reinventing the wheel" that would not have been necessary if copying had been permitted;[58] and (d) the administrative costs of the system.[59]

In sum, the key issue for a system of intellectual product regulation is whether the restraints it empowers brings forth enough works *that would not have otherwise been produced* to make the system's costs worthwhile. But although Judge Easterbrook examines some empirical data, the facts pull both ways,[60] and at no point does the court make a finding that contractual restraints of this kind are in fact necessary to lure databases like this into being. Only if the restraints *possessed* such incentive power would we be in a realm where monopoly of any kind—and price discrimination as ameliorative—would be useful.[61]

Consider, here, Judge Easterbrook's logic:

> If ProCD had to recover all of its costs and make a profit by charging a single price—that is, if it could not charge more to commercial users than to the general public—it would have to raise the price substantially over $150. The ensuing reduction in sales would harm consumers who value the information at, say, $200. They get consumer surplus of $50 under the current arrangement but would cease to buy if the price rose substantially. If . . . the only way to make a profit turned out to be a price attractive to commercial users alone, then all consumers would lose out—and so

56. This would include, for example, the welfare loss a prospective purchaser would experience if the artificially high price enabled by the monopoly precluded her purchase. See the discussion of "deadweight loss" in Fisher, *supra* note 12, at 1236, 1240.

57. We might call this "free speech costs." For example, in cases where a parodist or critic is judged to have copied "too much" of the parodied work to avail himself of the Fair Use Doctrine, *see* 17 U.S.C. § 107 (1997), the parody or critique is subject to injunction.

58. Identifying this problem is usually credited to Bob Gorman.

59. *See* William M. Landes & Richard A. Posner, An Economic Analysis of Copyright Law, 18 J. LEGAL STUD. 325 (1989).

60. "The database . . . cost more than $10 million to compile and is expensive to keep current" ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1449 (7th Cir. 1996). Yet, as Judge Easterbrook notes, the database "is much more valuable to some users than to others. The combination of names, addresses, and SIC codes enables manufacturers to compile lists of potential customers. Manufacturers and retailers pay high prices to specialized information intermediaries for such mailing lists; ProCD offers a potentially cheaper alternative." *Id.* Judge Easterbrook did not explore the latter fact, but it means that that retailers and manufacturers might as customers pay enough in an initial sale of the database to more than cover creation costs. *See supra* note 17.

61. For a useful investigation of price discrimination in the copyright context, see Meurer, *supra* note 54, at 849.

> would the commercial clients, who would have to pay more for the listings because ProCD could not obtain any contribution toward costs from the consumer market.[62]

But is the result so clear? If the commercial price were $500, say, and even one of ProCD's commercial customers reproduced the database for resale, that copyist would likely charge consumers something far less than ProCD's price. The consumer would no longer lose out, she would just buy a cheap copy from the replicator.

I do not claim that this is a necessarily good result.[63] My point is that these are difficult empirical questions of a kind Congress is best able to resolve.

Recall that Judge Easterbrook's conclusion regarding the virtues of price discrimination was premised, as the opinion says, on ProCD being able to charge "a single price."[64] But in a realm without legal or technological systems to control copying, ProCD could not easily control price *at all*—neither a single price nor a dual-price structure. That is because purchasers of ProCD's disks could reproduce and sell the database at prices different from, and presumably lower than, ProCD's. Just as an enforceable contractual restraint (or other form of restraint) makes price discrimination possible, it is just such restraints which are necessary if a seller is to charge "one price" which constitutes the only price in the market.

In comparison with a monopolist charging a single price, a monopolist with a price-discrimination structure might be preferable. But in comparison with lawful free copying and a resulting range of

62. *ProCD*, 86 F.3d at 1449.

63. For example, the existence of the copying might force ProCD to further raise its price to commercial customers, which in turn might lead to even commercial customers purchasing "unauthorized" copies, which in turn might drive ProCD into bankruptcy or discourage others from going into the business of database creation. In addition, Jane Ginsburg has suggested in conversation that the presence of high prices for commercial databases may mean that no copies at all get out to consumers. After all, how much would someone pay for a copy if his only interest was in selling copies of it? In a world without IPRs (or high-value initial customers or some other device to gain market power), once consumer copies were widely distributed, additional parties could soon enter the market and compete. This prospect of falling prices and profit could discourage anyone from going into the business of making and selling consumer copies. Therefore, Professor Ginsburg argues, the presence of high prices for commercial databases may mean that no copies at all get out to consumers.

The point is a good one. But everything depends upon the particular facts. Imagine for example three retailers exist that can use the database to reach new customers, and that perhaps each of these companies values access to the database (for this nonreplicative purpose) at one-third of *P-prime*. If each paid one-third of *P-prime* for a copy, all three would have an economic motive (barring community, contextual, or legal restraints) to buy a "commercial" version of the database and open a sideline business as a seller of cheap copies or cheap Web access to the public.

64. *See ProCD*, 86 F.3d at 1449.

prices, the advantages of price discrimination are (to say the least) hardly so clear. The opinion seems to assume that the choice is between a monopoly with no price discrimination—where the seller puts only one price on the database copies it sells—and a monopoly that contains some price discrimination.

Perhaps Judge Easterbrook was assuming that the "commercial" copies of the database were subject to contractual restraints on copying that would escape pre-emption[65] regardless of welfare effects. If these were the facts and the law, then a "commercial" buyer could not lawfully become a replicator.[66] But to move logically from that complex set of assumptions (which was itself never stated) to a judgment that welfare would be increased by subjecting the "consumer" to a shrinkwrap copying restraint, the opinion would need to contain additional findings.

Such findings are possible. For example, it might be economically desirable to enforce the shrinkwrap restraint on consumer purchasers like Zeidenberg *if* the total revenue available to ProCD from commercial customers was far beneath *P-prime* (leaving ProCD in need of significant revenues from the consumer market) *and if* the consumer market could only be effectively exploited if the law prevented the Zeidenbergs of the world from sharing the database commercially. Alternatively, even if one or more commercial customers paid *P-prime* to ProCD, it might be economically desirable to enforce a restraint on Zeidenberg *if* in the future commercial clients would purchase from Zeidenbergs rather than from database originators like ProCD.[67] But Judge Easterbrook's opinion fails to address these points, and at least some literature suggests that commercial clients want format, accuracy, updating and debugging that a Zeidenberg's copy could not provide.

In the wake of the 1991 *Feist* decision, where the Supreme Court first declared laborious compilations uncopyrightable if "unorigi-

65. This is far from an absurd assumption. Although the District Court opinion focused on the "consumer" version of the disks, that opinion could be read as indicating that even "commercial" versions carried with them a prohibition on copying. *See* ProCD, Inc. v Zeidenberg, 908 F. Supp. 640, 644 (W.D. Wis. 1996). Commercial buyers are more likely to negotiate real contracts than are consumers who buy off the shelf, and negotiated contracts are more likely to escape pre-emption than are shrinkwrap contracts.

66. In such a case, the proper basis of comparison would indeed be "one high price"—because no one who had a copy would be free to recopy it for consumers.

67. That is, enforcing the constraints would be desirable if ProCD would be unwilling to distribute any copies to the consumer market in the absence of enforceable shrinkwrap constraints, and if none of ProCD's commercial clients made copies for consumers.

nal,"[68] observers were often concerned about the ability of the database industry to continue. Yet many published reports suggest the industry experienced no significant difficulties in the wake of the *Feist* decision.[69] Revenues kept flowing to the producers of even uncopyrightable databases because purchasers wanted to obtain features that copyists could not provide: speedy and physically convenient modes of presentation, quick update services, guarantees of quality, or the like.[70]

This suggests it is at least possible that ProCD would have kept a large portion of its customers even if commercial use and copying of the database were allowed—that is, ProCD may have produced the database even if it could not employ shrinkwrap licenses at all.[71] If *this* is the likely scenario, then the shrinkwrap license validated by *ProCD* merely imposed restraints on use, and consequently increases in price and decreases in the quantity of databases available. It made

68. Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340 (1991).

69. *See, e.g., Presentation by David O. Carson, Esq.*, 17 U. DAYTON L. REV. 997, 1000 (1992). Thus, though "copyright cannot be relied upon to prevent a competitor from lifting factual data from a database to use in preparing a competing product," in two days of 1998 hearings "only one of fourteen witnesses described a situation in which he had suffered harm by the alleged extraction of information from his database." *Database Antipiracy Legislation: Chronology, Status Report and Analysis* (last modified Oct. 2, 1998) <http://www.aalp.org/piracy.html>.

I must admit, however, that some of the continuity in database revenues may have been due to the presumed availability of contract enforcement. *See Carson, supra*, at 1001; *see also* Paul T. Sheils & Robert Penchina, *What's All the Fuss About* Feist? *The Sky is Not Falling on the Intellectual Property Rights of Online Database Proprietors*, 17 U. DAYTON L. REV. 563, 575-76 (1992).

70. Thus, Steven Metalitz, Vice President and General Counsel of the Information Industry Association, noted:

> Within weeks after the [*Feist*] decision [put white pages into the public domain], information crossed my desk about a new CD-ROM product that consisted of scanning white pages onto CD-ROM. That product has proven successful and fills a market need. But at the same time the licensing agreement [by which a user agrees to pay the original producer for access], even for telephone directories, is essential if you want the best possible product. If you want the most up-to-date listings, you do not want to wait until the directory comes out, you want to license the tapes of updates immediately, and for a variety of other reasons, while you may be able to make a non-infringing product without a licensing agreement, you are, in most cases, going to make a better product with a licensing agreement.

Presentation by Steven J. Metalitz, Esq., 17 U. DAYTON L. REV. 775, 783 (1992) (for his institutional affiliation, see 17 U. DAYTON L. REV. 763 n.*). To similar effect see, e.g., Alfred C. Yen, *The Legacy of* Feist*: Consequences of the Weak Connection Between Copyright and the Economics of Public Goods*, 52 OHIO ST. L.J. 1343, 1369 (1991). The classic discussion of non-copyright modes of collecting revenues for intangibles is Breyer, *supra* note 16. Also see Palmer, *supra* note 16.

71. This assumes ProCD would have had enough revenue to justify its investment even if some outliers, like Mr. Zeidenberg, would buy a copy only to recopy it or sell cheap access to it on the Web. Recall that this is presented merely as a hypothesis; I have no more proof than Judge Easterbrook did on the issue of whether in fact the contract terms constituted a necessary incentive to initial production.

things worse, not better, for consumers.

It is all a matter of what baseline one chooses for comparison. It is only when one begins from assuming that a "single price" can be charged that price discrimination looks like a good thing. But to charge a single price, a producer needs market power, at the extreme a monopoly. One should not *give* such market power in the name of fostering price discrimination.

Let us return briefly to the issue of federal supremacy over state contract law. If what occurred in *ProCD* is defined as "price discrimination," then the same definition of "price discrimination" covers copyright's method of fostering incentives. That means that even if price discrimination is a Good Idea, it's a Congressional Good Idea. This perception might raise more pre-emption difficulties than Easterbrook was willing to face. For if federal copyright law is using the same device as the purported contract term, but is applying that device *differently*, it certainly raises the possibility that wholesale enforcement of shrinkwrap licenses terms of this type might interfere with congressional objectives.

IV. PROFESSOR FISHER AND THE FIRST SALE DOCTRINE

In an article entitled *Property and Contract on the Internet*, William Fisher III argues that the law should "facilitate" creators' shifting away from reliance on IPRs and toward reliance on "a combination of contractual rights and technological protections."[72] The supposed virtues of price discrimination play a large role in his argument.[73] Yet Professor Fisher compares (as Judge Easterbrook did) the effects of monopoly lacking price discrimination, on the one hand, with, on the other, monopoly coupled with price discrimination.[74] He then argues, unsurprisingly, that the former imposes higher welfare costs than the latter. Unfortunately, the Fisher essay leaps from that conclusion to the recommendation that courts and legislatures should foster price discrimination by enforcing contractual restraints on copying.

What Professor Fisher neglects is that an information producer is unlikely to have a monopoly to begin with unless the law imposes

72. *See* Fisher, *supra* note 12, at 1203. Professor Fisher also argues that the law should simultaneously require that "such 'private' arrangements abide by restrictions designed to protect the public interest," *id.*, such as a protection for fair use, *id.* at 1246-47, 1250-52.

73. *See id.* at 1234-40, 1251-52

74. *See id.* at 1234-40.

restraints on copying. And whether such a restraint should be enforced is precisely the question to be decided in the contract cases, and precisely the question that intellectual property law has historically been entrusted with deciding.[75]

Instead of comparing two monopoly scenarios, Professor Fisher should be comparing monopoly with a mixture of monopoly and competition. If a comparison is made between, on the one hand, a situation where monopoly is coupled with price discrimination, and, on the other hand, a situation where there are many competing sellers, the latter price will be considerably lower than the price under price discrimination. Also, the quantity of embodiments produced

75. For this reason (among others), I find surprising Professor Fisher's assumption that a court would find it difficult to hold contracts like that in *ProCD* pre-empted. *See id.* at 1254.

Even more surprising is his apparent relative indifference to whether or not courts should enforce Internet distributors' efforts to restrain commercial copying and other activities beyond the period of copyright expiration. *See id.* at 1248-52. He views such efforts as "somehow offensive" and something that we should "plausib[ly]" prohibit but which he thinks cause "[n]o great harm." *See id.* at 1249-50. Accordingly, he seems to prefer other strategies over adopting outright prohibitions on contractual restraints that seek to operate beyond a copyright's term. *See id.* at 1251-52.

Should the Internet come to dominate our society as the delivery source for musical and literary works, paper copies of classics could become hard or cumbersome to find. It seems inadvisable (to say the least) for state law to empower an Internet provider to decide when and under what terms an orchestra can perform Beethoven symphonies, or a publishing company can reprint Shakespeare's sonnets, or a Tom Stoppard can write a play that quotes liberally from *Hamlet*.

James Molloy has argued in conversation that competition among Net providers will keep the fees that any provider charges for reproduction and performance quite low. But, abstract models of free competition aside, I doubt those fees would be zero. Today, anyone can go to a library, take home a volume of Shakespeare's plays, photocopy enough copies for her theater group, and perform any of the plays—for free or for a hefty admission charge—without violating anyone's rights or asking anyone's permission. That should not change.

I suspect that Professor Fisher would not disagree with the general point I raise here. But as written, his current proposals would permit only "browsing" in libraries' computers, *see id.* at 1251, and not copying. He seems to endorse contractual restraints without regard to whether material is in the public domain. True, he argues that certain activities should be privileged (such as educational and political uses, *see id.* at 1250), but even commercial uses of our common heritage can provide significant public benefit at fairly low cost to each of us individually. (Consider in this regard Kenneth Branagh's excellent film versions of Shakespeare's plays.)

Moreover, it is hard to imagine how a regime of technological protections buttressed by contract could even distinguish between favored and nonfavored uses without significantly eroding privacy. Professor Fisher suggests that the law "allow creators to bury in their products devices that prevented serial copying, thus reducing the risk that the material, once made available without charge to privileged users, would become available for free to all users." *Id.* at 1251. But a privileged user can simply retype the literary work, or turn on a tape recorder as he plays the delivered music loudly, in order to obtain a physically unrestricted copy which he can then resell to others. Therefore, deliverers of content are unlikely to be satisfied with devices to prevent serial copying. If contractual restraints were also available to them, the issue would then be how to distinguish between privileged and nonprivileged users without invading the privacy of both groups. Professor Fisher does note the importance of privacy issues, *see id.* at 1248 n.111.

will be at least as great. Both from an allocative and distributional perspective, therefore, provided that incentives are otherwise accounted for, the competitive solution will be better than a price discrimination scenario.

Admittedly, *if* there is need for copying restraints in order to produce an increase in incentives, then it may be advisable to enforce such restraints. If so, it may be advisable to enforce the copying restraints in a way that permits many rather than few sub-markets for price discrimination purposes. But that will not necessarily be the case.

The foregoing is a subtle point that needs restating: Even where empirical evidence suggests that *some* monopoly power[76] is a good idea for the purpose of increasing incentives, it is not necessarily a good thing to increase the amount of control and thus the amount of price discrimination involved. Consider, in that connection, the movie cassette market mentioned above, or the instance of second-hand books discussed by Professor Fisher.[77]

Congress has decided that at least some monopoly power is a good thing for movies and novels.[78] Nevertheless, it may be a good thing that the First Sale Doctrine denies movie companies and book publishers a legal right over resales and rentals. Under that Doctrine, the owner of copyright in a movie or novel who wishes to sell embodiments *must compete* with second-hand, library, and rental copies of the same embodiment.

Competition from these other sources reduces the price the copyright owner can charge, and gives consumers a number of alternate choices at alternate prices. This is good for consumers—provided that the other rights that the law *does* give to the copyright owner (such as the right to control reproduction) provide sufficient incentives for the desired amount of creation.

In Professor Demsetz's classic piece on price discrimination, perfect price discrimination appeared desirable because its infinite divisibility generated the seller at least as much revenue as did a monopoly—and Demsetz was working from a framework that

76. I should mention that in the intellectual property field, the word "monopoly" is typically used loosely, to indicate that a seller whose work is desired by the public is given *some* control over price. Only rarely will that amount to a complete monopoly. Thus, some readers will read *only* Stephen King's books when they're in the mood for quality horror fiction, but other readers will view a number of other writers' books as potential substitutes.

77. *See* Fisher, *supra* note 12, at 1237.

78. Unlike uncreative compilations of data that are unprotected by copyright, movies and novels are protected against a range of commercially significant uses by purchasers.

assumed that full monopoly revenue was required to provide adequate incentives.[79] However, if in a particular context a lesser amount of revenue is acceptable from the incentive perspective, then it is better to give IPR owners rights *with lacunae* than to give them all-embracing rights, no matter how finely the owners are able to price discriminate. Other things being equal, consumers are better off if price differences result not from one supplier's efforts to discriminate, but rather from the presence of additional suppliers.

This means that Professor Fisher's charts need to be redrawn. Under the First Sale Doctrine, there are many sources for books and cassettes, and many prices. Therefore, a single-seller, single-price model is not the appropriate starting point for comparison.[80] Instead, once the copyright owner of movies and novels has begun to sell cassettes and books, the copyright owner becomes only one of many decentralized sources for those movies and cassettes.

The result, again, may be lower price and greater quantity. Therefore, so long as incentives are not an issue—and that is an empirical matter not to be settled by abstract graphs—it is *lesser* price discrimination rather than more that may increase consumer welfare.

There is much to learn from Professor Fisher's excellent article, as there is from Judge Easterbrook's wide-ranging scholarship and jurisprudence. But each makes an argument about price discrimination that is flawed. In *ProCD*, the argument depends on unproven and even unstated assumptions; in the Fisher piece, the argument depends on an inappropriate comparison.

CONCLUSION

The Patent Act gives the inventor or her assigns the exclusive right to "make, use, and sell" the invention. This means (among other things) that if someone wants to mass-produce the invention, she needs a license from the inventor. This will cost more than purchasing a single embodiment of the invention. Similarly, the Copyright Act provides separate exclusive rights over reproduction, sale, adaptation, public performance, and public display. This means that copyright owners can distinguish in the prices they charge so that persons who buy a copy to read it pay one price, while those who want to reproduce, adapt, or publicly perform or display it need to

79. *See* Demsetz, *supra* note 3.
80. *See* Fisher, *supra* note 12, Figure 1 at 1235.

spend more.

Price discrimination classically was a way for monopolists to profit by distinguishing among different buyers' differing willingness to pay.[81] Yet a monopolist charging a single price imposes a higher deadweight loss on society than one who does not. That is because a monopolist who price discriminates makes more money, but also provides more products to more people, than a monopolist who does not.

So yes, it is true that once one has a monopoly in an intellectual product, it can be a good thing for society if that monopolist can price discriminate.[82] That is what Professor Demsetz taught,[83] and that is precisely what our statutes do.[84] Incentives are necessary, so Congress grants exclusive rights that can lead to monopolies, and the rights are subdivided in a way that makes price discrimination easy. But the choices of where to allow price discrimination are deliberate. Thus, the copyright statute fosters price discrimination between readers and replicators, but does *not* foster price discrimination between those who buy a copy for reading pleasure and those who buy a copy to mine it for ideas on which to base their own next production.[85] One cannot leap to the assumption that where *some* monopoly is a good idea, more price discrimination is better. Moreover, and most fundamentally, price discrimination is at best a mode of ameliorating a monopoly's effects. It is not a reason to approve a firm's efforts to use contracts to acquire monopoly power over a market.

81. This willingness, in turn, is often dependent on intensity of use. The Copyright and Patent Acts single out particular intense uses, and give the IPR holder the power to charge differentially among them.

82. But note that even if the allocative welfare effects of perfectly price discriminating among the buyers of an intangible were good, such price discrimination also produces a potentially noxious distributive effect: the elimination of consumer surplus. Under monopoly, with or without price discrimination, producers are richer, and consumers poorer, than they would be in a purely competitive world.

83. *See* Demsetz, *supra* note 3, and the discussion of Demsetz in *supra* note 3. For other limitations on Professor Demsetz's analysis, see Michael Meurer, Copyright Law and Price Discrimination (working paper 1999).

84. It is not clear that Professor Demsetz saw that the intellectual property statutes already facilitated price discrimination.

85. Under 17 U.S.C. § 102(b) (1997) and settled caselaw, copyright cannot be claimed in an idea.